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Osmotic-Controlled Release Oral Delivery System (OROS) - The Application of OROS Medication Delivery Technology: Present and Future

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Osmotic-Controlled

Examples of OROS Medications

❖ Concerta (methylphenidate)

- ADHD control
- Longer duration of control
- Less additive +
- Fewer side effects
- Safer for adults

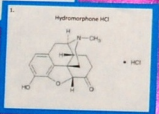


❖ Paliperidone

- Schizophrenia control
- Increased number of episode free days
- Lower cost of patient care

❖ OROS Hydromorphone HCl

- Chronic pain management
- Better dose control
- Less need for more powerful medications
- Lower overdose potential
- Fewer negative side effects



❖ Metformin HCl

- Diabetes control
- Better regulation of blood sugar

Release Oral delivery

System (OROS) –

The Application of OROS

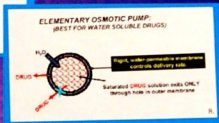
Medication Delivery

Technology:

Present and Future

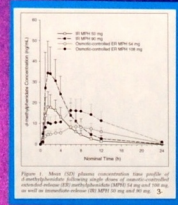
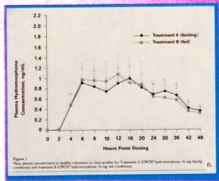
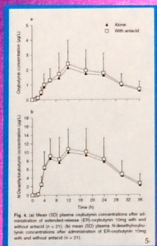
What is OROS and How Does it Work?

- ❖ It is a controlled sustained release delivery system for medication
- ❖ Consists of a layered rigid tablet permeable to water with a small hole
- ❖ Water enters tablet from the body
- ❖ This forces medication out through the small hole
- ❖ Osmotic pressure acts as a pump



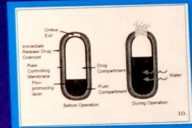
OROS Advantages

- ❖ Single Tablet Dosage
- ❖ Extended Release
- ❖ More Consistent Blood Plasma Concentration
- ❖ Lower Abuse & Addiction Potential
- ❖ Near Constant Medication Delivery
- Independent of pH and/or food



The Future of OROS

- ❖ Antibiotics
- ❖ Cancer treatment
- ❖ Any medication where an extended controlled release would be beneficial



Conclusion

OROS use has been shown to have significant advantages over conventional forms of medicine delivery. The application of this technology will continue to have many benefits well into the future. Using OROS technology allows for a controlled extended release of a specific medication in changing environments with a lower abuse potential and better overall treatment of medical conditions. The potential for this technology in the near future shows great promise. As the benefits of OROS technology continue to be seen in new formulations, the technology will become essential to the medical community.

Acknowledgements

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